

Conferință Lunară

Classical p -Banach spaces, $0 < p < 1$

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Miercuri 20 septembrie 2017, ora 13:00
IMAR, Amfiteatrul Miron Nicolescu, parter

Abstract: This is a survey concerning results obtained in the early '80s by the author [14], [15], [16], [17] about some classical p -Banach spaces, $0 < p < 1$.

Also some answers to the problems considered in these papers are given.

A vector space E on the complex field is a p -Banach space, where $0 < p < 1$, if there is a function $\|\cdot\| : E \rightarrow \mathbb{R}_+$, such that:

1. $\|x\| = 0$ if and only if $x = 0$.
2. $\|\alpha x\| = |\alpha| \cdot \|x\| \quad \forall x \in E, \alpha \in K$.

3. $\|x + y\|^p \leq \|x\|^p + \|y\|^p \quad \forall x, y \in E,$

and the space E is complete with respect to the topology generated by the $\|\cdot\|$.

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1. Examples of p -Banach spaces
2. Why study p -Banach spaces?
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4. Complemented subspaces
5. Positive complemented sublattices
6. Unicity of the unconditional and symmetric bases
7. Banach envelope
8. p -convex Banach lattices, $0 < p < 1$

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